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## SPACE AIR-EXCHANGE PER HOUR CALCULATOR

HAGGERTY SCHOOL, 110 CUSHING ST, CAMBRIDGE, MA

9/8/2021

ROOM NAME/#	SERVED BY	CEILING HEIGHT (FT)	FLOOR AREA (FT <sup>2</sup> )	VOLUME (FT <sup>3</sup> )	TOTAL SUPPLY AIR (FT <sup>3</sup> /MIN)	VENTILATION AIRFLOW IN (FT <sup>3</sup> /MIN)	EXHAUST/ RETURN AIRFLOW OUT (FT <sup>3</sup> /MIN)	TOTAL AIR CHANGES PER HOUR (O.A. PLUS RECIRC. AIR)	AIR EXCHANGES PER HOUR (MUST BE ≥ 2.0)	FILTER MERV RATING
L05 Gym	RTU-1	24.6	3605.3	88631.0	7701	3266	4435	10.0	2.8	13
L05 Gym	RTU-2				7094	899	6195			
L05A Storage		9.0	72.7	654.3		NO TAB DATA		0.0	0.0	#N/A
L05 Gym Office	UV-4	7.6	67.3	510.4	46	0	21	5.4	2.5	5
L05T Gym Office Toilet		7.6	45.6	345.8			0 FNE	0.0	0.0	#N/A
L05B Storage		9.0	159.1	1431.9			12	0.0	0.5	#N/A
L04 Multipurpose Room	UV-3	10.4	1633.3	17013.5	892	101		7.1	0.0	5
L04 Multipurpose Room	UV-4				1124	1				
L04A Storage		9.0	72.7	654.3	0	0	0	0.0	0.0	#N/A
L04 Office	UV-4	7.6	67.3	510.4		0	18	0.0	0.0	5
L04T Office Bathroom	EXH	7.6	45.6	345.8			0 FNE	0.0	0.0	N/A
L04C Storage	UV-4	9.0	45.6	410.4			12	0.0	0.0	5
L03 Comm Sch Office	UV-3	9.0	98.6	887.4	0	0		0.0	0.0	5
L02 Custodial Office	UV-3	9.0	100.7	906.0	41	5		2.7	0.0	5
L01 Reading Program	UV-1	9.0	612.0	5508.0	1008	0	0 FNE	11.0	0.0	5
L11 Storage	UV-1	9.0	419.7	3777.3		NO TAB DATA		0.0	0.0	5
Girls bathroom bottom floor	EXH	8.0	209.5	1676.0			0 FNE	0.0	0.0	N/A
Custodian st in girls bathroom	EXH	8.0	140.7	1125.6			0 FNE	0.0	0.0	N/A
Boys bathroom bottom floor	EXH	8.0	209.5	1676.0			0 FNE	0.0	0.0	N/A
Storage in boys bathroom	EXH	8.0	140.7	1125.6			0 FNE	0.0	0.0	N/A
L12 mechanical		9.0	961.0	8649.0		NO TAB DATA		0.0	0.0	#N/A
L12 electrical		9.0	148.0	1332.0		NO TAB DATA		0.0	0.0	#N/A
L13 cust		9.0	32.0	288.0		NO TAB DATA		0.0	0.0	#N/A
Elev machine rm		9.0	55.5	499.5		NO TAB DATA		0.0	0.0	#N/A
Cust st in bottom floor hallway		9.0	35.0	315.0		NO TAB DATA		0.0	0.0	#N/A
Elevator		9.0	70.0	630.0		NO TAB DATA		0.0	0.0	#N/A
L14 storage		9.0	350.2	3151.8		NO TAB DATA		0.0	0.0	#N/A
L14 electrical		9.0	55.0	495.0		NO TAB DATA		0.0	0.0	#N/A
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L06 Sensory Motor Room	UV-2	9.3	642.6	5944.1	488	339	40 FNE	4.9	3.4	5
OT/PT	FCU-3	9.0	211.4	1902.6	249	119	130	7.9	3.8	5

L08 Cafeteria	RTU-6	10.5	1619.7	17006.9	7915	5416	2519	27.9	8.9	13
Kitchen	RTU-6	7.8	471.0	3650.3	157	107	67	2.6	1.1	13
Kitchen bathroom	EXH	7.8	40.0	310.0			14 FNE	0.0	0.0	N/A
Kitchen storage (both)		7.8	17.3	133.7		NO TAB DATA		0.0	0.0	#N/A
L08A JANITOR CLOSET	EXH	7.8	15.0	116.3			24 FNE	0.0	0.0	N/A
L08B Storage		9.0	44.0	396.0			0 FNE	0.0	0.0	#N/A
Hallway bottom floor		9.0	1295.3	11657.7		NO TAB DATA		0.0	0.0	#N/A
101 Sped K-2	FCU-9	9.5	250.0	2375.0	320	289	77	8.1	1.9	5
102 Kindergarten	UV-5	9.5	1153.4	10957.3	956	277	277	5.2	1.5	5
102T Toilet		8.0	19.5	156.0			26	0.0	0.0	#N/A
103 Kindergarten	UV-6	9.5	1153.4	10957.3	913	27	27	5.0	0.1	5
103T Toilet		8.0	19.5	156.0			22	0.0	0.0	#N/A
1F Hallway	FCU-13	9.0	69.0	621.0	0 FNE	0 FNE	0 FNE	0.0	0.0	5
1F Hallway	FCU-12	9.0	500.0	4500.0	0 FNE	0 FNE	0 FNE	0.0	0.0	5
1F Corridor by Stair 1	FCU-5	9.0	500.0	4500.0	499	161	338	6.7	2.1	5
1F Corridor by 108/109	FCU-6	9.0	500.0	4500.0	0 FNE	0 FNE	0 FNE	0.0	0.0	5
1F Corridor by Stair 2	FCU-7	9.0	500.0	4500.0	351	94	257	4.7	1.3	5
1F Corridor by 110/111	FCU-8	9.0	500.0	4500.0	0 FNE	0 FNE	0 FNE	0.0	0.0	5
102S & 103S Storage Rooms		9.0	28.3	255.0		NO TAB DATA		0.0	0.0	#N/A
104 First Grade	UV-7	9.5	903.4	8582.1	937	245		6.6	0.0	5
104C Cubbies		8.0	43.8	350.0			223	0.0	0.0	#N/A
104T Toilet		8.0	19.5	156.0			20 FNE	0.0	0.0	#N/A
104T Staff Toilet		8.0	48.0	384.0			18 FNE	0.0	0.0	#N/A
104S / 105S / 106S / 107S Storage		9.0	7.5	67.5		NO TAB DATA		0.0	0.0	#N/A
104W / 105W Workroom		9.0	69.9	628.9		NO TAB DATA		0.0	0.0	#N/A
106W / 107W Workroom		9.0	69.9	628.9		NO TAB DATA		0.0	0.0	#N/A
105 First Grade	UV-9	9.5	897.3	8524.4	895	33		6.3	0.0	5
105C Cubbies		8.0	43.8	350.0			319	0.0	0.0	#N/A
105T Toilet		8.0	19.5	156.0			5 FNE	0.0	0.0	#N/A
106 Sped	UV-8	9.5	903.4	8582.1	1107	29		7.7	0.0	5
106C Cubbies		8.0	43.8	350.0			29 FNE	0.0	0.0	#N/A
106T Toilet		8.0	19.5	156.0			16	0.0	0.0	#N/A
106T Staff Toilet		8.0	48.0	384.0			0	0.0	0.0	#N/A
107 Kindergarten	UV-10	9.5	897.3	8524.4	1037	25		7.3	0.0	5
<b>ROOM NAME/#</b>	<b>SERVED BY</b>	<b>CEILING HEIGHT (FT)</b>	<b>FLOOR AREA (FT²)</b>	<b>VOLUME (FT³)</b>	<b>TOTAL SUPPLY AIR (FT³/MIN)</b>	<b>VENTILATION AIRFLOW IN (FT³/MIN)</b>	<b>EXHAUST/ RETURN AIRFLOW OUT (FT³/MIN)</b>	<b>TOTAL AIR CHANGES PER HOUR (O.A. PLUS RECIRC. AIR)</b>	<b>AIR EXCHANGES PER HOUR (MUST BE ≥ 2.0)</b>	<b>FILTER MERV RATING</b>
107C Cubbies		8.0	43.8	350.0			25 FNE	0.0	0.0	#N/A
107T Toilet		8.0	19.5	156.0			17 FNE	0.0	0.0	#N/A
100 Teachers Room	FCU-10	9.5	762.5	7243.8	490	490		6.4	1.2	5
100 Teachers Room	FCU-11				287	287	140			
112 Custodian Storage		9.5	31.3	296.9			0 FNE	0.0	0.0	#N/A
113 Electrical		9.5	45.5	432.3			0 FNE	0.0	0.0	#N/A
108 Reading Recovery	RTU-4	9.5	911.0	8654.5	2066	722	1344	14.3	5.0	13
110 Art Room	RTU-5	9.5	911.0	8654.5	1370	0 FNE	0 FNE	9.4	0.0	13

110 Kiln		9.0	29.0	261.0		NO TAB DATA		0.0	0.0	#N/A
110 Two Storage Rooms		9.0	29.0	261.0		NO TAB DATA		0.0	0.0	#N/A
109 Pre-School	RTU-3	9.5	919.6	8736.2	1736	144	1592	11.9	1.0	13
109A Office	RTU-3	8.0	29.0	232.0	0	0		0.0	0.0	13
109T Toilet	RTU-3	8.0	54.0	432.0			22 FNE	0.0	0.0	13
109S Storage	RTU-3	9.5	18.0	171.0			12 FNE	0.0	0.0	13
111 Music Room	RTU-9	9.5	919.6	8736.2	1897	915	982	13.0	6.3	13
3 st in rm 108		9.0	29.0	261.0		NO TAB DATA		0.0	0.0	#N/A
Small st in rm 111		9.0	29.0	261.0		NO TAB DATA		0.0	0.0	#N/A
Large st in rm 111		9.0	45.0	405.0		NO TAB DATA		0.0	0.0	#N/A
St outside rm 111		9.0	18.0	162.0		NO TAB DATA		0.0	0.0	#N/A
Hallway 2nd floor	FCU-19	9.0	2223.5	20011.5	0 FNE	0 FNE	0 FNE	0.0	0.0	5.0
Hallway 2nd floor	FCU-20				0 FNE	0 FNE	0 FNE			
Hallway 2nd floor	FCU-15				0 FNE	0 FNE	0 FNE			
Main Office + Reception	FCU-21	9.0	440.0	3960.0	0 FNE	0 FNE	0 FNE	0.0	0.0	5
Nurse	FCU-18	9.0	148.4	1335.6	137	0 FNE	0 FNE	6.0	0.0	5
Hallway main office/nurse		9.0	35.0	315.0		NO TAB DATA		0.0	0.0	#N/A
Nurse Toilet		8.0	26.2	209.6			0 FNE	0.0	0.0	#N/A
202 Speech Language	FCU-17	9.0	131.0	1179.0	137	0 FNE	0 FNE	6.0	0.0	5
204 Principal	FCU-14	9.0	126.0	1134.0	150	150	34	7.9	1.8	5
205 Principal	FCU-14	9.0	81.0	729.0	112	112	35	9.2	2.9	5
203 Conference	UV-11	9.0	269.0	2421.0	745	69	69	18.5	1.7	5
206 Assistant Principal	UV-12	9.0	195.0	1755.0	714	66	66	24.4	2.3	5
Rm 207	FCU-24	9.0	78.0	702.0	0 FNE	0 FNE	0 FNE	0.0	0.0	5
208 Parent Liaison	FCU-16	9.0	79.0	711.0	0 FNE	0 FNE	26 FNE	0.0	0.0	5
209 SLP	FCU-16	9.0	120.0	1080.0	0 FNE	0 FNE	23 FNE	0.0	0.0	5
210 Grade 2	UV-13	9.5	898.3	8533.9	972	440		6.8	0.0	5
210C Cubbies	UV-13	8.0	43.8	350.0			440	0.0	0.0	5
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210T Toilet		8.0	19.5	156.0			0 FNE	0.0	0.0	#N/A
210T Staff Toilet		8.0	48.0	384.0			0 FNE	0.0	0.0	#N/A
210W / 211W Workroom		9.0	71.3	641.7		NO TAB DATA		0.0	0.0	#N/A
211 Grade 2	UV-15	9.5	898.3	8533.9	1096	292		7.7	0.0	5
211C Cubbies	UV-15	8.0	43.8	350.0			292	0.0	0.0	5
211T Toilet		8.0	19.5	156.0			0 FNE	0.0	0.0	#N/A
210S / 211S / 212S / 213S Storage		9.0	7.5	67.5		NO TAB DATA		0.0	0.0	#N/A
212 Grade 3	UV-16	9.5	898.3	8533.9	958	0	1	6.7	0.0	5
212C Cubbies	UV-16	8.0	43.8	350.0			0 FNE	0.0	0.0	5
212T Toilet		8.0	19.5	156.0			0 FNE	0.0	0.0	#N/A
212W / 213W Workroom		9.0	71.3	641.7		NO TAB DATA		0.0	0.0	#N/A
213 Grade 3	UV-14	9.5	898.3	8533.9	974	0		6.8	0.0	5
213C Cubbies	UV-14	8.0	43.8	350.0			0 FNE	0.0	0.0	5
213T Toilet		8.0	19.5	156.0			0 FNE	0.0	0.0	#N/A

304 / 305 Corridor	FCU-23	9.0	796.1	7164.9	133	NO DATA		1.1	0.0	5
300A		9.0	35.0	315.0		NO TAB DATA		0.0	0.0	#N/A
304T Staff Toilet		8.0	48.0	384.0			10 FNE	0.0	0.0	#N/A
306 / 307 Corridor	FCU-22	9.0	796.1	7164.9	0 FNE	NO DATA		0.0	0.0	5
306T Staff Toilet		8.0	48.0	384.0			0 FNE	0.0	0.0	#N/A
300 Computer Lab	UV-23	9.5	816.5	7756.8	0 FNE	0 FNE	236	9.0	3.3	5
300 Computer Lab	UV-24				1160	421	185			
301 Counselor	UV-26	8.8	194.0	1713.7	568	185	185	19.9	6.5	5
302 Psychologist	UV-27	8.8	194.0	1713.7	554	143	143	19.4	5.0	5
303 Sped	UV-17	9.5	997.7	9478.2	812	39	39	11.3	0.8	5
303 Sped	UV-18				979	90	90			
303C Cubbies		8.0	45.0	360.0		NO TAB DATA		0.0	6.5	#N/A
303S Storage		9.0	40.0	360.0		NO TAB DATA		0.0	0.0	#N/A
304 Grade 5	UV-19	9.5	901.3	8562.4	893	403		6.3	0.0	5
304C Cubbies	UV-19	8.0	43.0	344.0			403	0.0	0.0	5
304T Toilet		8.0	18.8	150.4			23 FNE	0.0	0.0	#N/A
304W / 305W Workroom		9.0	69.9	628.9		NO TAB DATA		0.0	0.0	#N/A
305 Grade 5	UV-21	9.5	889.2	8447.4	839	356		6.0	0.0	5
305C Cubbies	UV-21	8.0	43.0	344.0			356	0.0	0.0	5
305T Toilet		8.0	18.8	150.4			10 FNE	0.0	0.0	#N/A
304S, 305S, 306S, 307S Storage		9.0	9.8	88.2		NO TAB DATA		0.0	0.0	#N/A
306 Grade 4	UV-22	9.5	889.2	8447.4	830	0		5.9	0.0	5
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306C Cubbies	UV-22	8.0	43.0	344.0			0 FNE	0.0	0.0	5
306T Toilet		8.0	18.8	150.4			0 FNE	0.0	0.0	#N/A
306W / 307W Workroom		9.0	69.9	628.9		NO TAB DATA		0.0	0.0	#N/A
307 Grade 4	UV-20	9.5	901.3	8562.4	900	0		6.3	0.0	5
307C Cubbies	UV-20	8.0	43.0	344.0			0 FNE	0.0	0.0	5
307T Toilet		8.0	18.8	150.4			0 FNE	0.0	0.0	#N/A
Library	RTU-7	9.0	1985.0	17865.0	1122	0	3122	3.8	0.0	13
400 Small Office	RTU-7	9.0	43.1	387.9	23	0	43	3.6	0.0	13
401 Office	UV-28	9.0	202.0	1818.0	256	211	211	8.4	7.0	5
401S Storage		9.0	70.7	636.3		NO TAB DATA		0.0	0.0	#N/A
402 Behaviorist	UV-29	9.0	318.5	2866.5	254	158	158	5.3	3.3	5
402S Storage		9.0	70.7	636.3		NO TAB DATA		0.0	0.0	#N/A

FNE = "Fan not energized" per Final TAB Report

Avg	2.7	0.6
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